

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Christopher Perkins on 4-8-11.

The application has been amended as follows:

1. A method of decreasing primordial germ cell (PGC) numbers in an avian embryo, the method comprising: a) immunizing a female avian with an immunogenic epitope of a DAZL polypeptide; and b) obtaining an egg comprising an embryo from the female avian, wherein the embryo has a decreased number of primordial germ cells (PGCs) as a result of the immunizing.
2. The method of claim 1, wherein the female avian is selected from the group consisting of chicken, turkey, duck, quail, and sand hill crane.
3. The method of claim 2, wherein the female avian is a chicken.
4. The method of claim 1, wherein the immunizing is with an immunogenic epitope of DAZL polypeptide and an immunogenic epitope of VASA polypeptide.
5. Canceled
6. Canceled
7. A method of inhibiting primordial germ cell (PGC) development in an avian embryo, the method comprising: a) immunizing a female avian with an immunogenic

epitope of a DAZL polypeptide; and b) obtaining an egg comprising an embryo from the female avian, wherein development of primordial germ cells (PGCs) in the embryo is inhibited as a result of the immunizing.

8. The method of claim 7, wherein the immunizing is with an immunogenic epitope of DAZL polypeptide and an immunogenic epitope of VASA polypeptide.

9. The method of claim 7, wherein the female avian is selected from the group consisting of chicken, turkey, duck, quail, and sand hill crane.

10. The method of claim 9, wherein the female avian is a chicken.

11-57. Canceled

58. A method of reducing primordial germ cell (PGC) numbers, inhibiting PGC development, or both in an avian embryo, the method comprising: a) immunizing a female chicken or turkey with an immunogenic epitope of a DAZL polypeptide, an immunogenic epitope of a VASA polypeptide, or a combination thereof; and b) obtaining an egg comprising an embryo from the female chicken or turkey, wherein the embryo has a decreased number of primordial germ cells (PGCs) and/or the development of PGCs in the embryo is inhibited as a result of the immunizing.

59. Canceled

60. The method of claim 58, wherein the immunogenic epitope of a DAZL polypeptide comprises the amino acid sequence of SEQ ID NO: 7 or SEQ ID NO: 8 and/or the immunogenic epitope of a VASA polypeptide comprises the amino acid sequence of SEQ ID NO: 3 or SEQ ID NO: 4.

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61. The method of claim 58, wherein the immunizing is with an immunogenic epitope of a DAZL polypeptide and an immunogenic epitope of a VASA polypeptide.

62-67. Canceled

68. The method of claim 58, further comprising incubating the embryo to hatch.

69. A method of decreasing primordial germ cell (PGC) numbers, the method comprising: a) immunizing a female avian with an immunogenic epitope of a DAZL polypeptide, an immunogenic epitope of a VASA polypeptide, or a combination thereof; and b) obtaining an egg comprising an embryo from the female avian, wherein the embryo has a decreased number of primordial germ cells (PGCs) as a result of the immunizing.

70. Canceled

71. Canceled

72. The method of claim 1, wherein the female avian is immunized with more than one immunogenic epitope of a DAZL polypeptide.

73. The method of claim 7, wherein the female avian is immunized with more than one immunogenic epitope of a DAZL polypeptide.

74. The method of claim 58, wherein the female chicken or turkey is immunized with at least two immunogenic epitopes of a DAZL polypeptide.

75. The method of claim 69, wherein the female avian is immunized with at least two immunogenic epitopes of a DAZL polypeptide, at least two immunogenic

epitopes of a VASA polypeptide, or at least one immunogenic epitope of a DAZL polypeptide and at least one immunogenic epitope of a VASA polypeptide.

The following is an examiner's statement of reasons for allowance:

***Claim Rejections - 35 USC § 112***

***New Matter***

The rejection regarding claim 70 ("the amount of antigen ranges from about 50-200 µg") has been withdrawn because the claim has been canceled.

The rejection of claim 71 has been withdrawn in view of the amendment and the new "new matter" rejection of claim 69.

Example 1 disclosed "antigenic peptide regions of chicken DAZL and chicken VASA" (VASA-N, VASA-C, DAZL-N, DAZL-C), and administering the peptides to chickens (pg 52, line 8). Table 1 (pg 51) describes the structure of VASA-N, VASA-C, DAZL-N, and DAZL-C. Table 2 (pg 53-54) discloses the serum titer of antibodies against VASA-N, VASA-C, DAZL-N, and DAZL-C in chickens after immunization. Pg 25, lines 29-31, disclose DAZL-N, and DAZL-C as "peptide antigens".

Support for administering two epitopes of DAZL as in claims 72-75 is found on pg 54, Table 2, birds 554 and 556.

***Enablement***

The rejection of claims 1-3, 7, 9, 10, 58, 60, 68, 69 and 71 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement has been withdrawn in view of the amendment.

***Indefiniteness***

The rejection of claims 1-4, 7-10, 58-60 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn in view of the amendment.

The art did not reasonable teach or suggest decreasing/inhibiting primordial germ cells (PGC) numbers/development in an avian embryo by immunizing a female bird with DAZL, whereby an egg produced by the female bird comprises a sufficiently high concentration of antibodies that bind to DAZL expressed by an avian embryo present within the egg to decrease the number of PGCs in the avian embryo or inhibit the development of PGCs in an avian embryo present within in the egg.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wilson who can normally be reached at the office on Monday through Friday from 9:30 am to 6:00 pm at 571-272-0738.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance.

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Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Peter Paras, can be reached on 571-272-4517.

The official fax number for this Group is (571) 273-8300.

Michael C. Wilson

/Michael C. Wilson/  
Primary Patent Examiner